

General

Title

Perinatal care: proportion of infants receiving enteral feedings who receive any human milk, with or without fortifier or formula, within 24 hours before discharge, transfer, or death.

Source(s)

Vermont Oxford Network. Proportion of infants receiving any human milk before discharge. Burlington (VT): Vermont Oxford Network; 2015. 4 p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the proportion of infants receiving enteral feedings who receive any human milk, with or without fortifier or formula, within 24 hours before discharge, transfer, or death.

Rationale

Breastfeeding and human milk provide many significant benefits to infant health and development, and decrease incidence of infection and disease in infants (American College of Obstetricians and Gynecologists [ACOG] & Committee on Health Care for Underserved Women, 2007), particularly in preterm infants (Lucas et al., 1994; Vohr et al., 2006). While breastfeeding rates have increased with mounting evidence of its benefits, hospital practices to promote breastfeeding (such as the World Health Organization [WHO]/United Nations Children's Fund [UNICEF] "Ten Steps to Successful Breastfeeding") can further increase rates (WHO, 1998). The American Academy of Pediatrics (Section on Breast Feeding, 2012) and ACOG (2007) recommend human milk for all infants, and direct breastfeeding as early as

possible is recommended for all infants unless contraindicated, and recommend that infants in neonatal intensive care who are not yet able to breastfeed should be given mothers' expressed milk (or donor milk if the mother's is unavailable) fortified appropriately for very low birth weight (VLBW) infants (Section on Breast Feeding, 2012). The proportion of infants receiving human milk within 24 hours before discharge is an important measure of the quality of care delivered to neonates.

Evidence for Rationale

American College of Obstetricians and Gynecologists, Committee on Health Care for Underserved Women. ACOG Committee Opinion No. 361: Breastfeeding: maternal and infant aspects. *Obstet Gynecol*. 2007 Feb;109(2 Pt 1):479-80. [PubMed](#)

Lucas A, Morley R, Cole TJ, Gore SM. A randomised multicentre study of human milk versus formula and later development in preterm infants. *Arch Dis Child Fetal Neonatal Ed*. 1994 Mar;70(2):F141-6.

Section on Breastfeeding. Breastfeeding and the use of human milk. *Pediatrics*. 2012 Mar;129(3):e827-41. [PubMed](#)

Vermont Oxford Network. Proportion of infants receiving any human milk before discharge. Burlington (VT): Vermont Oxford Network; 2015. 4 p.

Vohr BR, Poindexter BB, Dusick AM, McKinley LT, Wright LL, Langer JC, Poole WK, NICHD Neonatal Research Network. Beneficial effects of breast milk in the neonatal intensive care unit on the developmental outcome of extremely low birth weight infants at 18 months of age. *Pediatrics*. 2006 Jul;118(1):e115-23. [PubMed](#)

World Health Organization (WHO). Evidence for the ten steps to successful breastfeeding. Geneva: World Health Organization (WHO); 1998.

Primary Health Components

Perinatal care; enteral feedings; human milk; infants

Denominator Description

All eligible infants admitted within 28 days of birth without having been discharged who receive any enteral feedings within 24 hours before discharge (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Number of infants who received any human milk within 24 hours before discharge (including "human milk only" or "human milk in combination with fortifier or formula") (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

Unspecified

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Hospital Inpatient

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

Less than or equal to 28 days after birth

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Health and Well-being of Communities

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

Calendar year (January 1 through December 31)

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Institutionalization

Patient/Individual (Consumer) Characteristic

Therapeutic Intervention

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

All eligible infants admitted within 28 days of birth without having been discharged who receive any enteral feedings within 24 hours before discharge

Population: Any infant who is admitted to the reporting hospital within 28 days of birth should be included, regardless of where in the hospital the infant receives care.

Note:

Discharge refers to initial disposition in most cases.

An infant is considered receiving no enteral feedings if the infant was:

Not receiving any enteral feedings with either formula milk or human milk at discharge, or

Discharged on intravenous (IV) total parenteral nutrition alone since the infant was not receiving any enteral feedings, or

Discharged only on sterile water or glucose water since the infant was not receiving either formula milk or human milk.

Enteral feedings may be given by any method including breast, bottle, gavage tube, gastrostomy tube, feeding cup, etc.

Refer to the original measure documentation for calculation instructions and data item definitions. For administrative coding and additional data item information, refer to the *2016 Manual of Operations: Part 2 Data Definitions & Infant Data Forms* (see the "Companion Documents" field).

Exclusions:

Infants not receiving any enteral feedings with either formula milk or human milk in the 24 hours prior to discharge.

Infants discharged on IV total parenteral nutrition.

Infants discharged only on sterile water or glucose water.

Infants admitted more than 28 days after birth.

Infants who have been home prior to admission.

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Number of infants who received any human milk within 24 hours before discharge (including "human milk only" or "human milk in combination with fortifier or formula")

Note:

An infant is considered receiving "Human Milk Only" if the infant was discharged receiving human milk as the only enteral feeding, either by being breast fed and/or by receiving pumped human milk.

An infant is considered receiving "Formula Only" if the infant was discharged receiving formula milk as the only enteral feeding.

An infant is considered receiving "Human Milk in Combination with Either Fortifier or Formula" if the infant was discharged receiving human milk, plus human milk fortifier and/or formula milk.

Formula milk includes all standard newborn formulas, premature formulas, and special formulas.

Refer to the original measure documentation for additional information.

Exclusions

Unspecified

Numerator Search Strategy

Institutionalization

Data Source

Administrative clinical data

Electronic health/medical record

Paper medical record

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Description of Allowance for Patient or Population Factors

Gestational age, birth weight, inborn/outborn status

Standard of Comparison

not defined yet

Identifying Information

Original Title

Proportion of infants receiving any human milk before discharge.

Measure Collection Name

Perinatal Care Measures

Submitter

Vermont Oxford Network - Health Care Quality Collaboration

Developer

Vermont Oxford Network - Health Care Quality Collaboration

Funding Source(s)

None

Composition of the Group that Developed the Measure

Neonatologists

Financial Disclosures/Other Potential Conflicts of Interest

None

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2015 Jan

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

Measure Availability

Source not available electronically.

For more information, contact the Vermont Oxford Network, 33 Kilburn Street, Burlington, Vermont, 05401; Phone: 802-865-4814; Fax: 802-865-9613; Email: mail@vtoxford.org; Web site: <https://public.vtoxford.org/> .

Companion Documents

The following is available:

Vermont Oxford Network. 2016 manual of operations: part 2 data definitions & infant data forms. Release 20.0. Burlington (VT): Vermont Oxford Network; 2015 Oct. 93 p. This document is available from the [Vermont Oxford Network Web site](#) .

NQMC Status

This NQMC summary was completed by ECRI Institute on February 2, 2016. The information was verified by the measure developer on March 16, 2016.

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Production

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